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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,332	03/31/2006	Daniel Burri	SSM551US	5883
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RATNERPRESTIA			EXAMINER	
P.O. BOX 980			BANH, DAVID H	
VALLEY FORGE, PA 19482				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/574,332

Applicant(s)

BURRI ET AL.

Examiner

DAVID BANH

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 17 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues that, as amended, the limitations of claim 17 set forth that the claimed configuration has torque generated uniformly over the entire length of the rotor. However, the claim language simply recited that a permanent magnet is provided over the area along the axis of the rotor. It does not require that the torque generated is uniform for the purpose of minimizing stress on the rotor.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 17, 19, 21, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471).

For claim 17, Kanebako teaches a rotation body (page 2, paragraph 33, levitation motor, Figure 1) comprising a stator **3a** (page 2, paragraph 33, Figure 1) including at least one stator winding **5a** (page 2, paragraph 33, Figure 1), a rotor **2a** (page 2, paragraph 33) including at least one permanent magnet (page 9, claim 4, fourth clause) and positioned for rotation relative to the stator (page 2, paragraph 33, rotation force) wherein current flowing through the stator winding interacts with at least one permanent

magnet (page 3, paragraph 36) and generates a torque acting on the rotor (page 2, paragraph 33, rotation force). Kanebako teaches that the motor is supported by a pair of spaced apart bearings (page 1, paragraph 4), in this claimed invention, magnetic bearings are taught to reduce friction, but Kanebako also teaches away from contact-type bearings. While Kanebako does not teach magnets being provided over all of the area of the longitudinal axis of the rotor, it does teach that as many magnets may be used as necessary (page 3, paragraph 36). Kanebako teaches that the increase in magnets will be helpful in reducing the current required for magnetic levitation. Thus, it would be obvious to one of ordinary skill in the art to provide magnets all over the area of the longitudinal axis of the rotor between the bearings, in addition to on all other portions of the rotor, for the purpose of most reducing the current for magnetic levitation.

For claim 18, Kanebako teaches at least two stator windings **5a, 6** (page 2, paragraph 33, Figure 1) provided at axially offset points on the stator (page 9, claim 8).

For claim 19, Kanebako teaches at least one stator winding **5a** (page 2, paragraph 33, Figure 1) generating a magnetic field for driving the rotor over at least half an axial length of the rotor (page 1, paragraph 6).

For claim 21, Kanebako teaches that the stator windings **5a, 6** (page 2, paragraph 33, Figure 1) are wound around the outer surface of the stator (page 9, claim 8, salient pole).

For claim 24, Kanebako teaches that the rotor is mounted on the stator by a magnetic bearing extending between the rotor and the stator (page 3, paragraph 33).

For claim 27, Kanebako teaches at least one permanent magnet (page 9, claim 4, fourth paragraph) that is annular and rod-shaped (page 9, claim 6, cylindrical).

4. Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Werson (US Patent 5,986,376).

Kanebako teaches all of the limitations of claim 20 as found in parent claim 17. Kanebako does not teach that at least one stator winding extends across the entire length of the stator. However, Werson teaches that at least one stator winding extends across the entire axial length of the stator (column 1, lines 60-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanebako by extending the stator windings across the entire length of the stator as taught by Werson for the purpose of increasing the scope and strength of the magnetic field generated by a given current.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Hatton (US PG Pub 2002/0109422A1).

Kanebako teaches all of the limitations of claim 22 as found in the parent claim 17. Kanebako does not teach that the rotor is a cylinder shell. However, Hatton teaches that the rotor is a cylindrical shell (page 5, claim 6, lines 4-7). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify Kanebako by making the rotor a cylindrical shell as taught by Hatton for the purpose of having it be light and uniform while rotating.

6. Claim 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Tumchenok (RU 2159282C2).

Kanebako teaches all of the limitations of claim 23 as found in the parent claim 17. Kanebako does not teach that the rotor is a cylinder body comprising a blind hole. However, Tumchenok teaches that the rotor is a cylinder body with blind holes engaged with body holes (see translated abstract). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the rotor Kanebako by using a cylinder body with a blind hole as taught by Tumchenok for the purpose of giving the rotor better dynamics for cooling.

7. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Ochi (US Patent 6,786,069B2).

Kanebako teaches all of the limitations of claim 26 as found in the parent claim 17. Kanebako does not teach a frictional lock for supporting the rotor fixed onto the rotating body. However, Ochi teaches a frictional lock for fixing the rotor to a rotating body (column 3, lines 40-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanebako by adding a frictional lock to hold the rotor to the rotating body as taught by Ochi for the purpose of keeping the rotor in a specified position.

8. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Fujigaki (US PG Pub 2003/0173837A1).

Kanebako teaches all of the limitations of claim 26 as found in the parent claim 17. Kanebako does not teach a cooling system for cooling at least a partial area of the stator. However, Fujigaki teaches fans being provided to cool the rotor and stator (page 1, paragraph 4). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify Kanebako by adding fans to cool the rotor and stator for the purpose of being able to prolong the stator in the axial direction without overheating it.

9. Claim 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Uno (US PG Pub 2003/0123375)

Kanebako teaches all of the limitations of claim 28 as found in the parent claim 17. Kanebako does not teach that at least one permanent magnet is provided on the rotor casing inner surface. However, Uno teaches a rotor magnet that is affixed to the inner surface of the rotor casing (page 2, paragraph 29). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify Kanebako by placing the magnets on the inner walls of the rotor casing for the purpose of producing a more compact overall rotor structure.

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Passini (US Patent 6,397,441).

Kanebako teaches all of the limitations of claim 29 as found in the parent claim 17. Kanebako does not teach that the rotor supports or defines a deflecting cylinder. However, Passini teaches a rotor **1** (Figure 1) that abuts and supports (column 2, lines 37-50) a deflecting cylinder **3** (Figure 1). It would have been obvious to one of ordinary

skill in the art the time the invention was made to modify the rotor taught by Kanebako by using it adjacent to the deflecting cylinder for supporting it as taught by Passini for the purpose of being able to use the rotor and rotation body to engage and drive the cylinder and roller elements of a printing.

11. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Loebach (US Patent 4,863,421).

Kanebako teaches all of the limitations of claim 30 as found in the parent claim 17. Kanebako does not teach that the rotor is used in a folding apparatus or in a reel changer. However, Loebach teaches a folding apparatus that utilizes a rotor (column 5, lines 39-50). It would have been obvious to one of ordinary skill in the art the time the invention was made to utilize the rotors taught by Kanebako in the fold machine taught by Loebach for the purpose of driving the cylinders and conveyers to move elements along for folding.

12. Claims 31, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Hara (US Patent 4,930,415).

Kanebako teaches all of the limitations of claims 31 and 35 as found in the parent claim 17. Kanebako does not teach that the rotation body of claim 17 defines a roller of a printing machine. However, Hara teaches a printing machine to contain a motor comprising a rotor and stator to be constructed with a roller body (column 4, lines 55-70). It would have been obvious to one of ordinary skill in the art the time the invention was made to construct the printing machine taught by Hara by using the rotation bodies

taught by Kanebako for the purpose of driving the rotating elements of the printing machine.

For claim 32, the combination of Kanebako and Hara teaches all of the limitations of claim 32 as found in the parent claim 31. Kanebako does not teach that the printing machine further comprises a control device configured either the voltage, strength of a current or frequency of a current flowing in at least one stator winding. However, Hara teaches a control device configured for the current, frequency and voltage of a stator winding (column 4, lines 66-67, column 5, lines 1-20, claim 1). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of Kanebako and Hara by adding a control device for the purpose of being able to adjust and monitor the strength of the magnetic field being produced by the winding.

For claim 36, Kanebako teaches a rotation body (page 2, paragraph 33, levitation motor, Figure 1) comprising a stator **3a** (page 2, paragraph 33, Figure 1) including at least one stator winding **5a** (page 2, paragraph 33, Figure 1), a rotor **2a** (page 2, paragraph 33) including at least one permanent magnet (page 9, claim 4, fourth clause) and positioned for rotation relative to the stator (page 2, paragraph 33, rotation force) wherein current flowing through the stator winding interacts with at least one permanent magnet (page 3, paragraph 36) and generates a torque acting on the rotor (page 2, paragraph 33, rotation force). Kanebako teaches that the motor is supported by a pair of spaced apart bearings (page 1, paragraph 4), in this claimed invention, magnetic bearings are taught to reduce friction, but Kanebako also teaches away from contact-

type bearings. While Kanebako does not teach magnets being provided over all of the area of the longitudinal axis of the rotor, it does teach that as many magnets may be used as necessary (page 3, paragraph 36). Kanebako teaches that the increase in magnets will be helpful in reducing the current required for magnetic levitation. Thus, it would be obvious to one of ordinary skill in the art to provide magnets all over the area of the longitudinal axis of the rotor between the bearings, in addition to on all other portions of the rotor, for the purpose of most reducing the current for magnetic levitation.

Kanebako does not teach that the rotation body is used for driving a cylinder or roller in a printing machine or that the cylinder or roller is positioned about the rotor. However, Mara teaches a printing machine comprising the rotation body as a motor for driving cylinders and rollers (column 4, lines 55-70) and for positioning the cylinder about the rotor. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kanebako by placing it in a printing machine and about a cylinder or roller to drive it for the purpose of moving printing webs through the printing machine and printing them.

13. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) and Hara (US Patent 4,930,415) as applied to claim 31 above in further view of Komatsu (US Patent 6,424,114B1).

The combination of Kanebako and Hara teaches all of the limitations of claim 33 as found in the parent claim 31 above. The combination does not teach an angle sensor for measuring the position of the rotor. However, Komatsu teaches an angle sensor for measuring the position of the rotor (column 3, lines 62-67, column 4, lines 1-

6). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify the combination of Kanebako and Hara by adding an angle sensor for measuring the position of the rotor for the purpose of determining its rotation speed.

14. Claim 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanebako (US PG Pub 2001/0030471) in view of Puschnerat (US Patent 5,950,538).

Kanebako teaches all of the limitations of claim 34 as found in the parent claim 17. Kanebako does not teach a rotation machine to comprise the rotation body taught by claim 17 in addition to rubber blanket cylinders, counter printing cylinders and plate cylinders coupled in pairs with the rubber blanket cylinders wherein each cylinder is driven by one of more cylinders including the rotation body. However, Puschnerat teaches transfer cylinders that are blanket cylinders (column 1, line 22) and counter pressure cylinders (column 1, lines 24-25), the cylinders together forming printing locations (column 3, lines 20-28), plate cylinders (column 3 lines 29-30) which are coupled in pairs with blanket cylinders (column 3, lines 34-36) and are driven by a common drive (column 2, lines 1-16). It would have been obvious to one of ordinary skill in the art the time the invention was made to modify Puschnerat by adding the rotation bodies taught by Kanebako for the purpose of serving as drives to actuate the plate, blanket and pressure cylinders.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID BANH whose telephone number is (571)270-3851. The examiner can normally be reached on M-Th 9:30AM-8PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB
October 23, 2008

/Daniel J. Colilla/
Primary Examiner
Art Unit 2854